
TECHNICAL QUALIFICATION PROGRAM ACCREDITATION PROCESS AND CRITERIA



FEDERAL TECHNICAL CAPABILITY PANEL

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FOREWORD

Training, education, and experience combine to provide a workforce that ensures safe operation of defense nuclear facilities. The Technical Qualification Program (TQP) establishes a process to objectively determine that individuals performing activities related to the technical support, management, oversight, or operation of defense nuclear facilities possess the necessary knowledge, skills, and abilities to perform their assigned duties and responsibilities. The TQP specifically applies to Department of Energy (DOE) technical employees whose duties and responsibilities require them to provide assistance, guidance, direction, oversight, or evaluation of contractor activities that could impact the safe operation of a defense nuclear facility.

Recognition that an effective Technical Qualification Program for the Department of Energy (DOE) is in place is accomplished through an accreditation process. This document describes the process for achieving and maintaining TQP accreditation and details the criteria upon which accreditation is based. The requirements in this document are applicable to those Primary DOE Organizations that are performing functions related to the safe operation of defense nuclear facilities, including the National Nuclear Security Administration (NNSA), in accordance with the requirements established in the *Federal Technical Capability Policy for Defense Nuclear Facilities* (DOE P 426.1) and the *Federal Technical Capability Manual* (DOE M 426.1-1A). Seeking TQP accreditation is mandatory for those organizations required to implement the program.

This document was developed by a working group of Federal employees and is issued on an interim basis. This interim issuance is to support the initiation of the TQP accreditation process. Based on feedback from the initial implementation of the accreditation process, the process and requirements described in this document will be modified as necessary and will be included in the next revision to DOE M 426.1-1A.

Approved for Interim Use


Chair, Federal Technical Capability Panel

12/29/05
Date

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TECHNICAL QUALIFICATION PROGRAM ACCREDITATION PROCESS SUMMARY

The accreditation of Technical Qualification Programs (TQP) enables both Headquarters and field organizations in the Department of Energy (DOE) to demonstrate that they have an effective program in place to ensure the technical competency of DOE technical employees whose duties and responsibilities require them to provide assistance, guidance, direction, oversight, or evaluation of contractor activities that could impact the safe operation of a defense nuclear facility. Accredited organizations are recognized for having programs and processes in place that adhere to established objectives and criteria for an effective TQP. Accreditation ensures the consistent application of TQP requirements across the Department, thereby facilitating the transportability of qualification when an individual moves from one organization to another.

The accreditation process described in this document is applicable to those organizations within DOE, including the National Nuclear Security Administration (NNSA), that are required to implement TQPs.

TQP Accreditation Process Elements

The TQP accreditation process consists of the activities described below. These activities are further defined in the document.

- Development and implementation, by the organization requesting accreditation, of a TQP that meets the requirements stated in the *Federal Technical Capability Manual* (DOE M 426.1-1A).
- A comprehensive self assessment of the TQP against the objectives and supporting criteria by the requesting organization. The details and conclusions of that evaluation are documented in a self-evaluation report. The self-evaluation report and a declaration of readiness by the senior manager are transmitted to the TQP accreditation support office at DOE-HQ.
- Evaluation of the requesting organization's TQP by an onsite accreditation review team. This team, consisting of specifically qualified individuals will evaluate the TQP against the objectives and criteria. The onsite evaluation team pays particular attention to ensure that the program is being effectively implemented throughout the organization. The results of the onsite review are documented in a TQP accreditation review report.
- A recommendation to the Deputy Secretary regarding accreditation of the program by the independent TQP Accreditation Board. This Board, consisting of senior managers from DOE and an expert from outside of DOE, makes this recommendation based on a formal meeting with senior representatives from the requesting site and the TQP accreditation review team leader. The recommendation is based upon information contained in the accreditation review report, and feedback and input from senior management from the requesting organization.

- A determination by the Deputy Secretary regarding accreditation.
- Continuous implementation and maintenance of TQP accreditation for 4 years. The organization must continue to maintain and implement the TQP in a manner that meets the objectives and criteria and that ensures a robust program. Renewal of accreditation is based on a self-evaluation report submitted by the organization and on a review by an onsite accreditation review team. The TQP Accreditation Board will review the results of these efforts and make a recommendation to the Deputy Secretary to renew or defer accreditation.

TQP Accreditation Support Office

The Office of Facility Safety (EH-2) serves as the TQP accreditation support office and, in that role, reports to the Chair of the Federal Technical Capability Panel. The TQP accreditation support office is responsible for facilitating the TQP accreditation process. This includes the following:

- developing and maintaining program documents;
- providing training on the TQP accreditation process;
- providing assistance as requested to support the TQP accreditation process;
- establishing accreditation review teams;
- developing the accreditation review report;
- supporting the TQP Accreditation Board;
- providing accreditation status reports to the Federal Technical Capability Panel;
- supporting the process to maintain and re-validate accredited TQPs; and
- coordinating the necessary resources to support the accreditation process.

Self-evaluation and Self-evaluation Reports

In preparation for initial accreditation or accreditation renewal, a TQP accreditation self-evaluation report is prepared for the TQP under review. The self-evaluation report serves as the “application” for accreditation. Before the accreditation review team visits the site, the requesting organization conducts a thorough self-evaluation of their program against the objectives and supporting criteria; documents the results in a self-evaluation report; and corrects, or begins to correct, any identified problems. The purpose of this self-evaluation is for the requesting organization to ensure that their program satisfies the criteria of an effective TQP. Organizations are encouraged to use an outside expert or peer from another organization to assist in this assessment and provide an objective, outside perspective. The TQP accreditation self-evaluation should have the following key attributes.

- Senior managers oversee the self-evaluation process to ensure critical identification, candid description, and lasting correction of TQP problems.
- Line managers and their staffs actively participate in the self-evaluation process.
- Self-evaluations of the TQP recognize both the strengths of the program and problems that need to be corrected.
- Alternative perspectives from other organizations or individuals are actively solicited.
- Activities or accomplishments (e.g., related ISO certifications, other professional certifications, participation in university sponsored programs) are identified and encouraged.
- Significant problems in the TQP are documented and investigated for root or contributing causes, and actions are taken to correct and prevent recurrence. Followup reviews are used to verify the effectiveness of corrective actions.

The TQP accreditation self-evaluation report is a candid, comprehensive, standalone document that describes the requesting organization's TQP. The report is an important communication link among the requesting organization, the TQP accreditation support office, and the TQP Accreditation Board about the state of the program. For programs being reviewed for accreditation renewal, the TQP accreditation self-evaluation report reflects strengths and areas for improvement identified throughout the 4-year renewal period. The senior manager responsible for the organization requesting accreditation approves the report and forwards it to the DOE TQP accreditation support office approximately 2 months before the accreditation team visit. The forwarding memo includes a declaration by the senior manager that the organization is implementing the TQP in accordance with the requirements of DOE M426.1-1A and is ready for accreditation.

Accreditation Review Team and Team Activities

The purpose of the TQP accreditation review team evaluation is to conduct a thorough and independent evaluation to review the status of TQP implementation and assess the actions taken to correct problems identified in the self-evaluation report. For initial TQP accreditation, an accreditation team evaluation will be scheduled when the requesting organization submits a comprehensive TQP accreditation self-evaluation report. Accreditation review team evaluations typically are scheduled approximately 3 months before the TQP Accreditation Board review date.

The accreditation review team may consist of TQP accreditation support office staff, outside experts, and peer reviewers from other sites. The team members have collective expertise in facility operations, technical qualification programs, and facility management. They must meet

specific, pre-established qualification requirements and receive training on the TQP accreditation process.

The TQP accreditation support office nominates the accreditation review team leader for a particular review, and the Chair of the Federal Technical Capability Panel approves the team leader. The TQP accreditation support office selects the most qualified individual to do the job. In making the selection, the following criteria should be considered.

- The individual is a senior level (GS-15 or above) manager, qualified as a Senior Technical Safety Manager (STSM), who must be very knowledgeable of the development and implementation of TQPs.
- The individual has experience leading evaluation teams.
- The individual, by virtue of reputation, background, and experience, will be respected by the organization being assessed. Federal Technical Capability Panel agents are encouraged to participate as team leaders.

The accreditation review team leader has the primary responsibility for selecting the team members. The importance of this task cannot be overemphasized. No other task has such a direct impact on the overall quality of the accreditation review. Typically, a TQP accreditation review team will have a team leader and four to six team members, one of which will be selected by the Chief of Defense Nuclear Safety (CDNS) or the Chief of ESE Nuclear Safety (CENS).

Assessment team members should have technical experience relevant to the assignment and knowledge of TQPs. They should also have some experience conducting program assessments. This experience provides the background for team members to work independently at an unfamiliar location, gather information quickly, and make objective recommendations. Team members should have qualifications that will be respected by the organization requesting the assistance (e.g., reputation, relevant background, and type and length of experience).

Accreditation review team evaluations typically last about one week. During the evaluation, team members observe TQP activities; interview staff and management personnel; review qualification requirements and qualifications of personnel; and examine TQP materials. The TQP is evaluated against all of the objectives and criteria using specifically developed lines of inquiry. Accreditation review team results are discussed with staff and management personnel at the site on a daily basis during the review.

Following the onsite evaluation, the TQP accreditation review team prepares an exit report to describe the results of the review. This report forms the basis for an exit meeting with senior management of the organization being reviewed and identifies applicable strengths or areas for improvement. Following the exit meeting, the requesting organization submits written responses that describe the actions taken or planned for identified areas for improvement. The accreditation

review team leader prepares a detailed TQP Accreditation Review Team Report that describes the results of the accreditation review team evaluation. This report is submitted to the TQP Accreditation Board for review and deliberation. The format of the assessment reports is as follows.

- Cover Page. Include the title of the report, the name of the office assessed, and the date of the report.
- Executive Summary. One page that provides a short overview of the team composition, dates of the assessment, and methodology. The executive summary should briefly describe assessment results, including strengths and weaknesses.
- Introduction. Provide relevant background information and describe the purpose and format of the report.
- Scope and Methodology. Describe the make-up of the team in general terms (referring to the attachment of the report for more detail), describe the scope of the assessment referencing the use of the objectives and criteria, and briefly describe the methodology applied.
- Results. Addresses in detail the overall program and each of the applicable objectives, including how the objective is met and identifies any strengths or weaknesses. Addressing each criterion for the objectives is not necessary; however, any criterion that is not achieved should be identified as a deficiency for that objective.
- Attachments. Include the following attachments.
 - Objectives and criteria used for the evaluation.
 - List of team leader and team members, including a brief description of their backgrounds and experience.
 - List of people contacted, activities observed, and documents reviewed.
 - Any other information the team leader deems pertinent.

TQP Accreditation Board

Seven members of the TQP Accreditation Board meet as a voting board to consider the TQP for accreditation or accreditation renewal. The Board typically meets approximately 2 to 3 months following the accreditation review team evaluation. The composition of the voting board includes one senior executive from NNSA, one senior executive from the Office of Environment, Safety and Health (EH), one senior executive from the Office of Energy, Science and

Environment (ESE), one manager of a field or site office, one senior executive from the Office of Security and Safety Performance Assurance (OA), the CDNS or CENS, and one outside expert. Board members should not be directly associated with the TQP that is being considered for accreditation. Board members must be knowledgeable about the TQP, receive training on the accreditation process, and be approved by their Program Secretarial Officer. For each Board conducted, the Chair will be the most senior program office line manager (NNSA, ESE or EH) on the Board that is responsible for the TQP that is being reviewed.

The TQP Accreditation Board meeting is attended by the responsible managers from the organization requesting accreditation, including the senior manager responsible for the TQP. Attendance is at the discretion of the organization requesting accreditation; however, it is essential that a senior manager who can make commitments to the Accreditation Board be present. The accreditation review team leader is also present at the meeting. Based on the information contained in the accreditation review team report, the Board members assess the status of the TQP and interact with site managers and the accreditation review team leader. The TQP Accreditation Board decision is based on a comparison of the TQP with the accreditation objectives and supporting criteria, status of corrective actions for any identified problems, and interactions with organizational managers during the meeting. Based on a majority vote, the TQP Accreditation Board will make one of the following recommendations to the Deputy Secretary of Energy.

- Award initial accreditation (or defer initial accreditation pending completion of corrective actions and additional Board review).
- Renew accreditation.
- Place accredited TQPs on probation. (A TQP placed on probation retains accredited status.)
- Withdraw accreditation.

The Deputy Secretary of Energy will make the final decision regarding TQP Accreditation.

Maintaining Accreditation

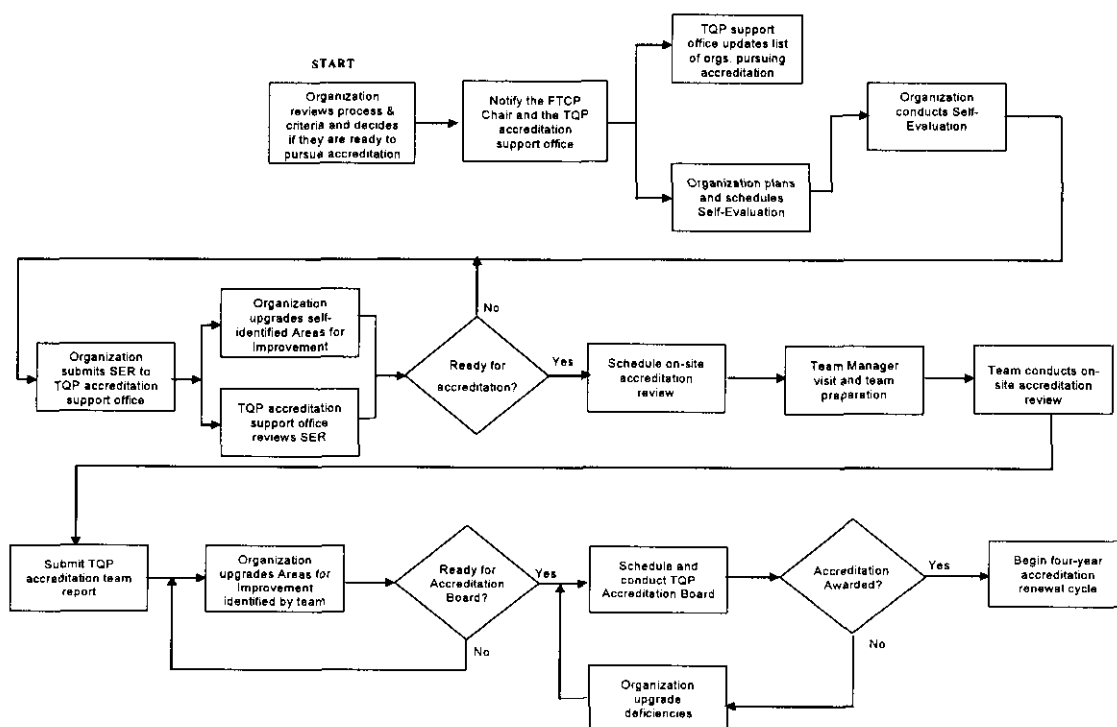
Organizations maintain TQP accreditation by continuing to implement and improve their programs in accordance with the objectives and criteria. By various means (for example review of site events or OA reviews), the TQP Accreditation Board may learn that one or more accreditation criteria are not being met for an accredited program. For each such reported problem, the Federal Technical Capability Panel Chair will consult with the Deputy Secretary, and, at the request of the Deputy Secretary, may initiate a review commensurate with the apparent magnitude of the problem. If such a review is conducted, the TQP accreditation support office will inform the appropriate managers of the problem and will either request additional information or have a team conduct an onsite review of the affected program. If appropriate, the

affected DOE managers will be asked to demonstrate to the TQP Accreditation Board that accreditation of the affected program should be continued.

Organizations for those TQPs placed on probation must submit a corrective action plan to the TQP Accreditation Board within 30 days of being notified of probationary status. The corrective action plan must address all issues identified by the Accreditation Board and identify any mitigating or compensatory measures. The organization must submit monthly reports to the Accreditation Board indicating the status of implementing the corrective actions to improve the program. An accreditation review team may review activities at the site to determine if corrective actions are being effectively implemented. The TQP Accreditation Board will review the status of probationary programs on a quarterly basis and decide if the organization should remain on probation, if accreditation should be restored, or if accreditation should be withdrawn.

Accreditation is valid for 4 years. The organization must continue to maintain and implement the TQP in a manner that meets the objectives and criteria and ensures a robust program. Renewal of accreditation is based on a self-evaluation report submitted by the organization and a review by an onsite accreditation review team. The duration, scope, and size of the onsite review team will be established using a graded approach as determined by the Federal Technical Capability Panel Chair. The TQP Accreditation Board will review the results of these efforts and decide to renew or defer accreditation.

TQP ACCREDITATION PROCESS FLOWCHART



TQP ACCREDITATION OBJECTIVES AND CRITERIA.

TQP-1, Demonstration of Competence. The program clearly identifies and documents the process used to demonstrate employee technical competence.

Criteria

- 1.1 At minimum, personnel providing management direction or oversight that could impact the safe operation of a defense nuclear facility have been identified as TQP participants.
- 1.2 IDPs, training plans, technical qualification records, or other related documents are updated to reflect the activities required for each individual to satisfy competencies.
- 1.3 A formal evaluation process is in place to objectively measure the technical competency of employees. The rigor of the evaluation process is commensurate with the responsibilities of the position.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-2, Competency Levels. Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations.

Criteria

- 2.1 Competency requirements include clearly defined knowledge, skill, and ability elements.
- 2.2 Recognized experts help establish competency requirements.
- 2.3 Related professional accreditation requirements are considered in the program as applicable.
- 2.4 Competency requirements are identified in the areas listed below. (Note: this does not imply that three separate documents are required.)

- **Basic Technical Knowledge.** Competency in areas such as radiation protection, occupational safety, chemical safety, nuclear safety, and environmental regulations.
- **Technical Discipline Competency.** Competency in a technical discipline (e.g., mechanical engineering, chemical engineering) that can be demonstrated by education, professional accreditation, examination, or on-the-job performance.
- **Position Knowledge, Skills, and Abilities.** Competencies specific to the position, facility, or program and the office.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-3, Plans and Procedures. Plans and/or procedures are developed and implemented to govern administration of the program.

Criteria

- 3.1 Senior management is committed to the TQP.
- 3.2 Written procedures that adequately define the processes and requirements to implement the TQP are in place.
- 3.2 Roles and responsibilities for implementing the TQP are clearly defined and understood by all involved.
- 3.4 The procedures that govern implementation of the TQP are understood by all involved and are being implemented as written.
- 3.5 A training and qualification records system is established for each employee in the TQP.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-4, Qualification Tailored to Work Activities. The program identifies unique Department- and position-specific work activities and specifies the knowledge and skills necessary to accomplish that work.

Criteria

- 4.1 An analysis has been performed to identify the related knowledge, skill, and ability elements to accomplish the duties and responsibilities for each TQP functional area or position.
- 4.2 The program includes job-specific requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of the office.
- 4.2 The program supports the mission needs of the office.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-5, Credit for Existing Technical Qualification Programs. The program is structured to allow credit, where appropriate, for other TQP accomplishments.

Criteria

- 5.1 Credit (equivalency) is granted for previous training, education, experience, and completion of related qualification/accreditation programs, where applicable.
- 5.2 Equivalency is granted based upon a review and verification of objective evidence, such as transcripts, course certificates, test scores, or on-the-job experience.
- 5.3 Equivalencies are formally validated, approved, and documented.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-6, Transportability. Competency requirements identified as applying throughout the Department are transferable.

Criteria

- 6.1 The program includes all competencies that have been identified as applying throughout the Department.
- 6.2 Formal documentation of the completion of Department-wide competencies is maintained in a manner that allows for easy transferability.
- 6.3 The TQP is integrated with personnel-related activities, such as position descriptions, vacancy announcements, recruiting, and performance appraisals.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

TQP-7, Measurable. The program contains sufficient rigor to demonstrate compliance to the principles.

Criteria

- 7.1 The technical competency of personnel who have completed the requirements of the TQP is adequate and appropriate.
- 7.2 The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the missions of the office.
- 7.3 The TQP provides for continuing training.

Review Approach

A tailored review approach is to be developed for each assessment activity that identifies the specific lines of inquiry, documents and records to be reviewed, personnel to interview, and activities to be observed.

APPENDIX A

SELF-EVALUATION REPORT GUIDANCE AND FORMAT

Self-Evaluation Process

Line manager and staff involvement in, and support of, the self-evaluation process are the foundation of the Technical Qualification Program (TQP) accreditation effort. This includes their involvement in the self-evaluation of the program and the preparation of the accreditation self-evaluation report. In assessing TQP effectiveness, line managers and staff must verify that the program is resulting in measurable improvements in the organization.

Accreditation evaluations are performed using the objectives and supporting criteria in this document and should identify strengths of the program as well as areas for improvement. The strengths and areas for improvement are substantiated with examples and selected anecdotal evidence that help clarify and provide perspective on their scope and depth. The root or contributing causes of areas for improvement are investigated, and actions are taken to correct the problems. Corrective action effectiveness reviews verify that problems identified in self-evaluations remain corrected.

Development of a Self-evaluation Report

The results of accreditation self-evaluations are described in a report submitted approximately 2 months before a TQP accreditation review team evaluation. The accreditation self-evaluation report is a standalone document that briefly conveys the health of the TQP. For accreditation renewal, the report also describes the results of ongoing and periodic focused self-assessments conducted during the accreditation period. As such, report quality can be enhanced by maintaining and periodically updating it, rather than reflecting the results of a single comprehensive evaluation.

Two months before the accreditation review team visit, the senior manager responsible for the organization requesting accreditation submits an approved self-evaluation report to the executive director of the TQP accreditation support office. The purpose of the report, together with an accreditation review team evaluation report, is to communicate sufficient information regarding the health of the TQP to facilitate an accreditation or accreditation renewal decision by the TQP Accreditation Board. Report content includes program strengths and areas for improvement, important program changes since accreditation or the last accreditation renewal, and brief descriptions of how each TQP Assessment Objective included in the document is met. The report will be submitted to the TQP Accreditation Board for accreditation or accreditation renewal consideration; it should be written with that audience in mind.

Organizations are encouraged to be critical in evaluating their TQPs and candid in describing areas for improvement. The report summarizes the root or contributing causes for areas for

improvement and corrective actions taken or planned. The section of the report that requires a written description of how each objective is met can be organized by addressing each criterion associated with the objective, or the objective description can be presented in a narrative format. The decision on which option to use is left entirely to the discretion of the organization submitting the report. The TQP Accreditation Board decision, however, will be based on how well each objective is met, not on whether any particular criterion is met.

Definitions of Key Terms for Accreditation Self-Evaluation Reports

Area for Improvement – A TQP-related issue or problem that contributes to an accreditation objective not being fully met or that adversely impacts future TQP effectiveness is an area for improvement.

Strength – This is an objective-level positive aspect of the TQP that is key to achieving superior performance. A strength adds significant value or improves organizational performance, as demonstrated by the following elements:

- enhanced ability of the organization to implement the TQP;
- successful implementation based on performance results;
- efficient use of organizational resources; and
- potential to serve as a model for other organizations to emulate.

Noteworthy Information – This refers to comments included in the discussion section of the report that describe the quality of the TQP and provide perspective on the effectiveness of the program. Noteworthy information may be positive, but not strength. Or it may be a less significant problem or precursor to a more significant problem. For example, positive noteworthy information could be an aspect identified during a self-evaluation that is not considered strong enough to be called a strength. Conversely, negative noteworthy information could be a problem that is not substantial enough to be considered an area for improvement. Noteworthy information provides additional management perspective that can be of value to the accreditation review team and to the Accreditation Board.

Format of the Self-Evaluation Report

The self-evaluation report must include the following sections.

Introduction and Summary

This section is used to share management's perspective on the TQP with the accreditation review team and the Accreditation Board. It is expected that each organization will include information

that best conveys the appropriate perspective on the TQP. This section is normally one to three pages and should include information such as:

- significant organizational performance issues and regulatory interactions that have helped shape the current organizational culture;
- strategic plans or events that have affected or are likely to affect the TQP, such as changes in staffing or loss of experienced personnel;
- overall management-level statement of how the TQP has been used to facilitate excellence in performance and strategy for the future; and
- description of how the accreditation self-evaluation report was prepared, the composition of the team, and the base of self-evaluation information used to develop the report.

Mission and Organization

This section is used to describe the mission(s) and functions of the organization requesting accreditation. The section also describes the organizational structure including high-level organizational charts, functions, and responsibilities.

Self-Evaluation Results (by Objective)

This section comprises the majority of the self-evaluation report. Each objective must be addressed individually in its own section. The following information must be included for each objective.

- *Discussion of Objective:* Include noteworthy information and a brief summary of the status of how the objective is achieved. This section can be organized to address each criterion associated with the Objective or can be presented in a narrative format. In either case, address the following information for each Objective. Use examples and limited anecdotal evidence, where appropriate, to provide perspective.
- *Strength(s):* Include examples and applications of the strength, and describe the benefits achieved by the strength.
- *Area(s) for Improvement:* Include date of identification, examples of the problem, root or contributing causes, actions taken or planned to correct the problem, and results of effectiveness reviews, if performed.

NOTE - If no strengths or areas for improvement have been identified for the objective, then include the following statement: "No objective-level strengths or areas for improvement were identified."